

Exhibit 4



N-Nitrosodiethylamine

CASRN 55-18-5 | DTXSID2021028

- [IRIS Summary \(PDF\)](#) (11 pp, 106 K)

[Key IRIS Values](#) | [Other EPA Information](#)

Noncancer Assessment

[Reference Dose for Oral Exposure \(RfD\) \(PDF\)](#) (11 pp, 106 K)
Not assessed under the IRIS Program. Last Updated:

[Reference Concentration for Inhalation Exposure \(RfC\) \(PDF\)](#)
(11 pp, 106 K)
Not assessed under the IRIS Program.

Cancer Assessment

[Weight of Evidence for Cancer \(PDF\)](#) (11 pp, 106 K)
Last Updated: 01/31/1987

WOE Characterization	Framework for WOE Characterization
B2 (Probable human carcinogen - based on sufficient evidence of carcinogenicity in animals)	Guidelines for Carcinogen Risk Assessment (U.S. EPA, 1986)

Basis:

- Induction of tumors at multiple sites in both rodent and nonrodent species exposed by various routes.
- This may be a synopsis of the full weight-of-evidence narrative.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure**(PDF) (11 pp, 106 K)****Oral Slope Factor:** 1.5×10^2 per mg/kg-day**Drinking Water Unit Risk:** 4.3×10^{-3} per $\mu\text{g}/\text{L}$ **Extrapolation Method:** Weibull, extra risk**Tumor site(s):** Hepatic**Tumor type(s):** Liver tumors (Peto et al., 1984)**Quantitative Estimate of Carcinogenic Risk from Inhalation****Exposure (PDF) (11 pp, 106 K)****Inhalation Unit Risk:** 4.3×10^{-2} per $\mu\text{g}/\text{m}^3$ **Extrapolation Method:** Weibull, extra risk**Tumor site(s):** Hepatic**Tumor type(s):** Liver tumors (Peto et al., 1984)

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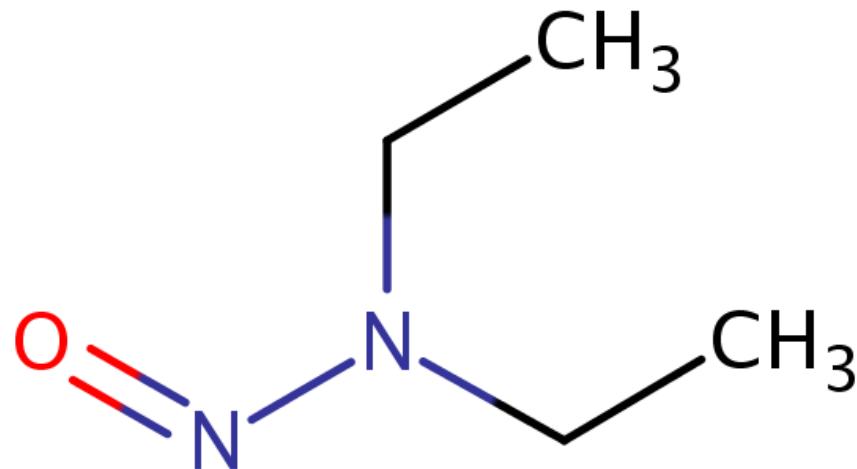
- [EPA Chemicals Dashboard - N-Nitrosodiethylamine](#)

Tumor Sites



[Hepatic](#)

Chemical Structure for N-Nitrosodiethylamine



Synonyms

- Dana: den
- Dena
- Diaethylnitrosamin
- Diethylamine, n-nitroso
- Diethylnitrosamine

[more synonyms](#)

LAST UPDATED ON {MONTH DAY, YYYY}

